

**WILDLIFE ECOLOGY TEAM
WILDLIFE HABITAT RELATIONSHIPS
IN WASHINGTON AND OREGON
FY2008**

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Title:

Demographic characteristics of spotted owls in the Oregon Coast Ranges, 1990–2008.

Principal Investigator(s) and Organization(s):

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Study Objective:

The study objective was to elucidate the population ecology of the spotted owl in the Oregon Coast Ranges, to include age and sex specific birth and death rates, and population trend estimates.

Potential Benefit or Utility of the Study:

Information on the demography of spotted owl populations is used to estimate population trends and assess the effects of different management strategies on spotted owls. This study provides data that estimates survival, reproduction, and population parameters of spotted owls relative to landscape features in the Oregon Coast Ranges.

Research Accomplishments:

Study Area and Methods

The study area was located in the central Oregon Coast Ranges, principally on public lands administered by the Siuslaw National Forest and the Bureau of Land Management's (BLM) Eugene and Salem Districts. Interspersed within these federal lands were state, municipal, and private

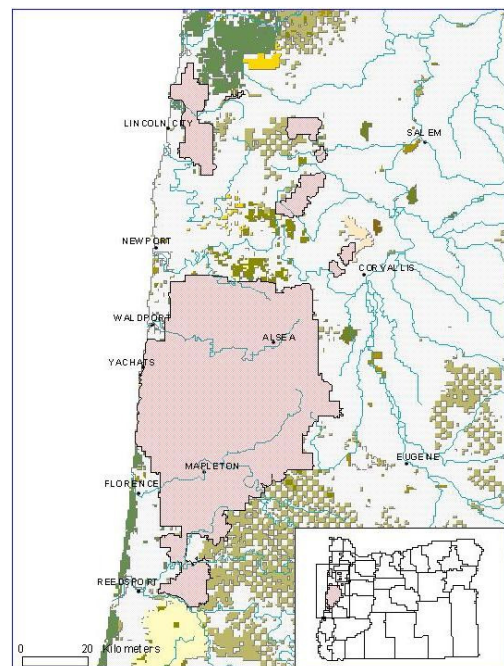


Figure 1. Oregon Coast Ranges Study Area.

lands (Fig. 1). Our surveys included approximately 1,710 km² of the total 4,060 km² bounded study area. The sample in 2008 included 203 continuously-monitored territories (i.e., historic territories) that we surveyed to document presence of spotted owls and on which we collected information on occupancy and reproduction. We and cooperating surveyors also monitored 26 territories that were not part of the demography study where spotted owls were initially detected on sites adjacent to historic territories. Because the number of territories that we annually surveyed increased during the early years of the study, we only used these initially surveyed territories to

estimate population trends on the study area (Anthony et al. 2006). However, we used all historic territories to estimate occupancy rates in this annual report. To estimate reproductive rates, we used any territory where a female was detected and where reproductive status was determined to protocol. In 2004, we dropped territories that were not consistently monitored from the sample. As a result of this adjustment in the number of territories surveyed, counts of individuals detected and banded have changed slightly over the years. This change also affected calculations of other territory-based statistics such as the proportion of territories occupied by barred owls.

Number of Areas Where Owls Were Located

The effort to locate, band, and monitor owls in 1990–2008 consisted of a combination of surveys conducted by us and cooperators from the Salem BLM, private consulting firms, and timber companies. In 2008, we detected the lowest number of occupied owl sites on the study area since the study was initiated in 1990 (Fig. 2). We detected 143 non-juvenile spotted owls at 82 territories. The number of sites with pairs has remained relatively constant the last 3 years after 8 years of a steady decrease. The decrease in the number of occupied territories was driven by a robust decrease in the number of single owls. We detected 19 single owls in 2008, roughly half the yearly average (Fig. 2, Appendix A). There were 4 territories where a male and female were detected, but pair status was not determined. (Fig. 2, Appendix A). In 2008, there was one additional owl located at a territory that was occupied by a male and female (pair status unknown). In 2008, we detected the first great gray owl on the study area when an adult was seen at the Upper Shepherd site on the Lane and Douglas County line.

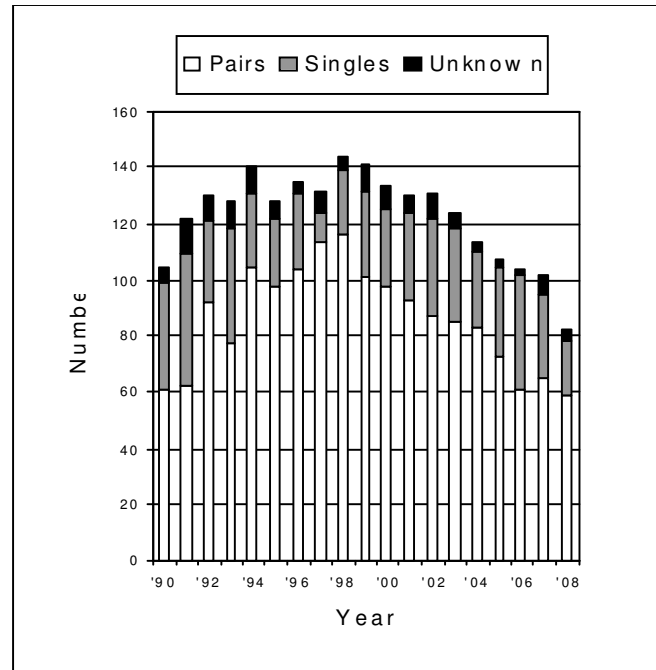


Figure 2. Number of territories occupied by pairs, single owls, or males and females of unknown status on the Oregon Coast Ranges Study Area, 1990–2008.

Proportion of Territories Occupied by Owls

From 1990–2008 we surveyed between 128 and 204 historic owl territories annually. In 2008 we surveyed 203 territories. The proportion of territories in which a spotted owl was detected has gradually declined over the course of the study from a high of 88% in 1991 to a low of 40% in 2008, a 10% drop from 2007 (Fig. 3, Appendix A). This is the first year in which we detected no spotted owls on more than half of the sites surveyed.

Number of Owls Marked

We banded 1,113 spotted owls on the study area in 1990–2008, including 317 adults, 71 subadults, and 725 juveniles (Appendix B). In 2008, we banded 41 spotted owls, including 3 adult males, 2 adult females, and 36 juveniles. We replaced color bands on 17 owls including 16 that were originally banded as juveniles (6 males and 11 females) and 2 of these were immigrants from outside the Oregon Coast Ranges Study.

Movements, Emigration and Immigration

We confirmed movement between territories by 40 owls in 2008. Twenty-two owls moved between territories within the Coast Ranges Study Area and 18 owls immigrated to or emigrated from the study area. Movements within the study area included 11 owls not observed since they were initially banded as juveniles, 11 owls last observed as adults. In 2008 we confirmed 11 cases of emigration and 7 cases of immigration on the study area.

Barred Owl Detections

The proportion of sites where at least one barred owl was detected within 1.6 km of the year-specific spotted owl activity center has increased substantially during the study, suggesting a steady increase in the barred owl population (Fig. 4, Appendix A). Our general survey methods probably underestimated the number of spotted owl sites with barred owls because we did not specifically target barred owls by mimicking their calls, and we often did not survey at night where we found spotted owls during initial day

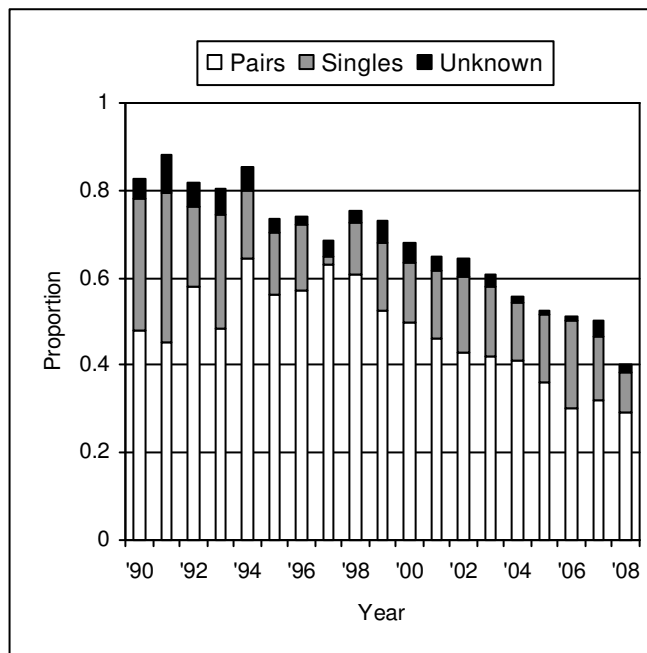


Figure 3. Proportion of territories occupied by pairs, single owls, or males and females of unknown status on the Oregon Coast Ranges Study Area, 1990–2008.

surveys. However, it is likely that the presence of barred owls made it more difficult to locate spotted owls leading to more night surveys, and this probably increased our barred owl detections over years when spotted owl occupancy rates were higher and meeting survey protocol for spotted owls was easier. Given these confounding problems, our data cannot be used to estimate the relative effects of changes in barred owl detectability and occupancy on the statistic we report (Fig. 4). The proportion of total survey time that included surveys at night has doubled from 1990 to 2008 (0.32 to 0.64; Fig. 5). Therefore, the continued increase in the annual proportion of territories where barred owls were detected is likely due to a combination of factors including an increase in barred owl populations and an increase in nighttime survey effort at territories where spotted owls were no longer easily detected.

Sex Ratio

As in previous years, the number of adult males detected on the study area in 2008 was greater than for females (Appendix C). The mean difference in the proportions of known sex owls detected on the study area in 1990–2008 was 0.08 ($SE = 0.01$; annual range = 0.01–0.18). We suspect that the disproportionate number of males detected may be due to sexual differences in detectability rather than a real difference in the population, but this has not been tested.

Reproduction

During the first decade of this study, reproductive estimates followed a

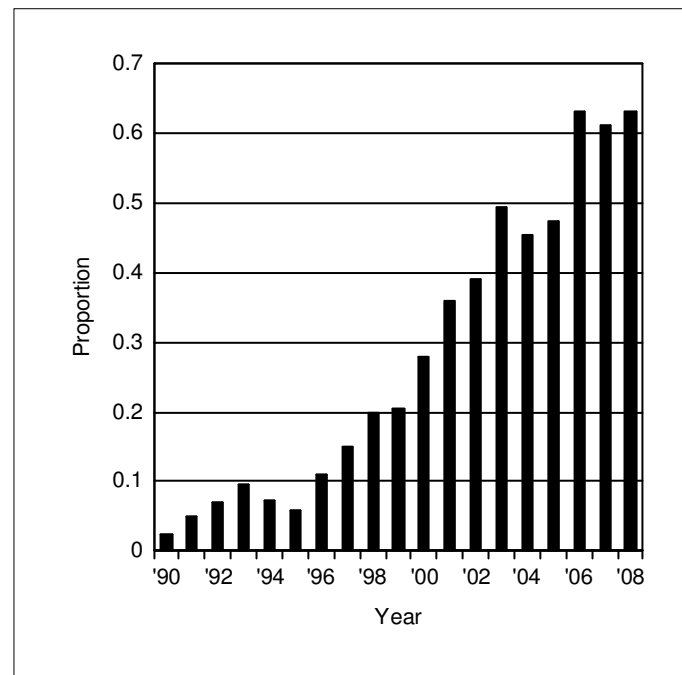


Figure 4. Proportion of spotted owl territories in which barred owls were detected on the Oregon Coast Ranges Study Area, 1990–2008.

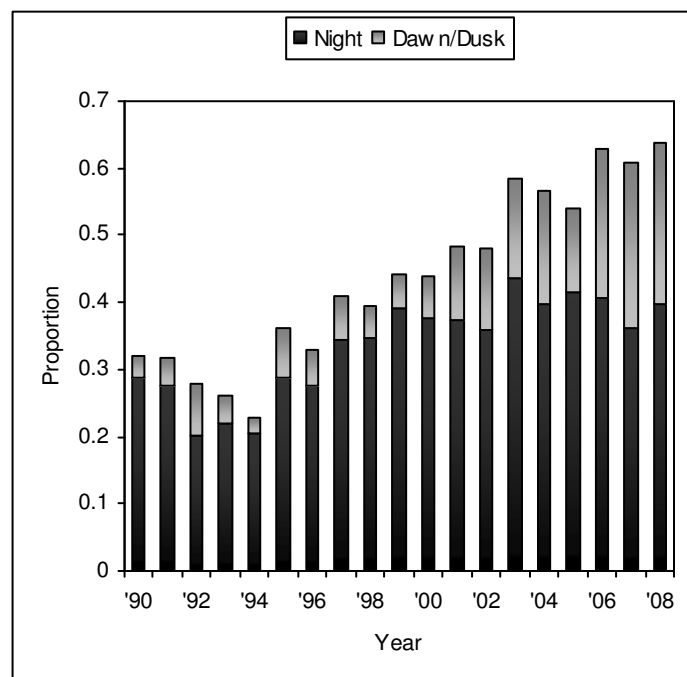


Figure 5. Proportion of survey effort conducted at night and dawn or dusk on the Oregon Coast Ranges Study Area, 1990–2008.

cyclic biennial pattern with higher reproduction in even-numbered years (Fig. 6, Appendices E–H). Starting in 2000, reproduction became more variable among years, developing into a 3-year cycle of relatively high, average, and low rates of fecundity (Fig. 6).

In 2008, 26 females produced 42 fledglings. The proportion of females that attempted to nest (0.72) was substantially higher than the average for all years (0.49; Appendix D). The proportion of females that fledged young in 2008 (0.42) was also higher than the average for all years (0.33; Appendix E). Of the 40 females that nested in 2008, 60% successfully fledged young (Appendix F).

The estimated annual fecundity for all non-juvenile females in 2008 was 0.32 and was above the overall yearly average of 0.25 (Fig. 6, Appendix G). Fecundity varied significantly among years ($F_{18} = 18.16$, $P < 0.01$). Mean brood size (the number of young produced per female that fledged at least one young) was 1.62 ($SE = 0.11$; $n = 26$) in 2008. The mean for all years was 1.52 and did not vary significantly among years ($F_{18} = 1.62$, $P = 0.05$; Appendix H).

Problems Encountered:

Road closures and a reduction in forest road maintenance have gradually restricted access and resulted in considerable increase in the number of areas that need to be accessed on foot. Diminished access has led to increased survey times.

Research Plans for FY 09:

- a. Continue demographic study with field work in March 2009.
- b. Continue to GPS historic spotted owl nest trees.

Publications and Technology Transfer Activities:

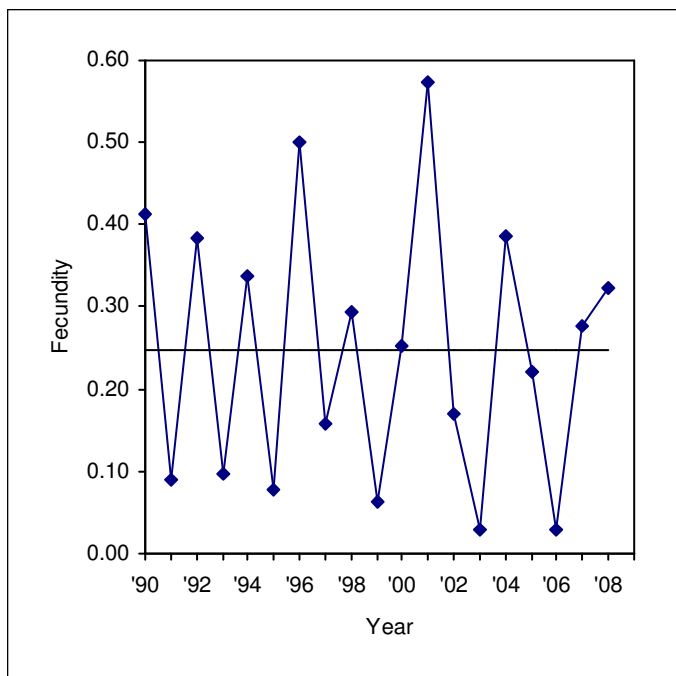


Figure 6. Estimated annual fecundity of female spotted owls on the Oregon Coast Ranges Study Area, 1990–2008. Horizontal line indicates the mean of yearly means (0.249 ± 0.038 SE).

- a. Participated in and assisted in organizing northern spotted owl meta-analysis workshop held in January 2009 at Oregon State University.
- b. Conducted field trips with university students and professional organizations.
- c. Provided demographic data to federal, state, and private organizations for their management activities.
- d. Detailed summary information regarding survey results and territory status determinations were provided to the Siuslaw National Forest and the Eugene, Coos Bay, and Salem Bureau of Land Management Districts.
- e. Provided updates regarding the current occupancy and reproductive status of owl territories to the Oregon Department of Forestry.
- f. Loschl, P. J. 2008. Age-specific and lifetime reproductive success of known age northern spotted owls on four study areas in Oregon and Washington. M.S. thesis, Oregon State University, Corvallis, Oregon.
- g. Conducted large- vs. small-prey preference experiments on spotted owls for Boise State University M.S. candidate Scott Graham.
- h. Conducted a field trip with a writer from the Smithsonian Magazine.

Duration of Study:

- a. Initiated in FY 1990.
- b. Contingent upon future funding. Currently funded through FY 2009.

Literature Cited:

Anthony, R. G., E. D. Forsman, A. B. Franklin, D. R. Anderson, K. P. Burnham, G. C. White, C. J. Schwarz, J. Nichols, J. Hines, G. S. Olson, S. H. Ackers, S. Andrews, B. L. Biswell, P. C. Carlson, L. V. Diller, K. M. Dugger, K. E. Fehring, T. L. Fleming, R. P. Gerhardt, S. A. Gremel, R. J. Gutiérrez, P. Happe, D. R. Herter, J. M. Higley, R. B. Horn, L. L. Irwin, P. J. Loschl, J. A. Reid, and S. G. Sovern. 2006. Status and trends in demography of northern spotted owls. *Wildlife Monographs* 163:1–48.

Appendix A. Historic spotted owl territories surveyed per year and the number of these with spotted owl pairs, spotted owl singles, unknown status spotted owls, hybrid owls, mixed species pairs, and barred owls in the Oregon Coast Ranges Study Area, 1990–2008.

Year	Surveyed	Pairs ¹	Singles ²	Unknown status ³	Additional owls ⁴	Additional owl sites	Hybrid owls ⁵	Mixed spp. pairs ⁶	Barred owls ⁷
1990	127	61	38	6	4	4	0	0	3
1991	137	62	47	12	4	3	0	0	7
1992	159	92	29	9	4	4	0	0	11
1993	159	77	41	10	1	1	0	0	15
1994	163	105	25	9	5	5	1	0	12
1995	174	98	24	6	2	2	0	0	10
1996	182	104	27	4	0	0	2	0	20
1997	179	113	11	7	3	2	1	0	27
1998	191	116	23	5	4	4	1	1	38
1999	192	101	30	9	5	5	1	1	40
2000	197	98	27	9	7	7	0	1	55
2001	201	93	31	6	3	3	0	0	72
2002	203	87	35	9	4	4	0	0	79
2003	203	85	33	5	8	7	0	0	100
2004	203	83	27	3	10	8	2	1	92
2005	203	73	32	2	3	3	1	1	96
2006	203	61	41	2	2	2	0	1	128
2007	203	65	30	7	7	6	0	0	123
2008	203	59	19	4	1	1	1	1	128

¹Pair territories were occupied by a spotted owl pair. Spotted owls paired with barred owls or hybrid owls are categorized as singles (9 cases over all years).

²Single territories were occupied by at least a single spotted owl. If more than a single spotted owl was detected but the birds were of the same sex, it was classified as a single territory.

³Unknown status territories had detections of both a male and a female spotted owl, but the birds did not meet protocol for establishing pair status.

⁴Additional owls were birds at sites where another spotted owl of the same sex was detected.

⁵Hybrid owls were considered present if there was a detection within the territory boundary. Cases include: single hybrid owls (2), hybrid males present as additional birds at a territory occupied by a spotted owl (2), spotted owls paired with hybrid owls (4), hybrid owls paired with barred owls (2).

⁶Mixed species pairs included territories in which at least one of the birds had some spotted owl ancestry and it was not a straight-forward spotted owl pair (e.g., spotted owl–hybrid owl, hybrid–barred owl, barred owl–spotted owl, etc.), but pair status was established to protocol.

⁷Barred owls were considered present if there was a detection within 1.6 km of the most recent preceding spotted owl annual activity center.

Appendix B. Number of spotted owls banded on historic territories in the Oregon Coast Ranges Study Area, 1990–2008.

Year	Adult		Subadult		Juveniles
	Males	Females	Males	Females	
1990	42	30	7	3	31
1991	25	23	2	4	7
1992	27	30	4	4	60
1993	6	8	2	0	13
1994	16	18	3	1	62
1995	5	8	1	2	13
1996	7	1	4	4	101
1997	3	7	4	0	36
1998	2	2	5	1	57
1999	3	5	1	1	10
2000	4	9	1	0	51
2001	1	1	0	3	99
2002	4	1	2	3	28
2003	2	1	1	2	5
2004	4	1	0	2	59
2005	3	2	1	0	24
2006	1	4	1	2	2
2007	3	3	0	0	31
2008	3	2	0	0	36
Total	161	156	39	32	725

Appendix C. Number of spotted owls detected on historic territories in the Oregon Coast Ranges Study Area, 1990–2008.

Year	Adult		Subadult		Unknown age			Juveniles
	Males	Females	Males	Females	Males	Females	Unknowns	
1990	54	40	9	4	34	28	9	42
1991	79	60	7	4	31	18	1	10
1992	92	88	6	6	20	17	7	70
1993	85	79	5	0	28	16	3	14
1994	100	101	13	8	23	12	2	71
1995	110	97	3	3	15	6	0	15
1996	109	94	9	11	12	9	1	107
1997	116	110	9	6	6	9	1	37
1998	116	107	16	10	12	10	0	68
1999	116	106	3	5	14	7	5	13
2000	118	101	5	4	11	7	2	51
2001	107	88	3	4	17	12	3	109
2002	94	78	7	10	27	14	3	31
2003	96	82	7	7	22	5	4	5
2004	91	84	1	4	16	11	3	65
2005	74	78	6	3	11	9	4	32
2006	70	64	2	3	17	10	5	2
2007	70	64	1	1	18	18	9	33
2008	62	52	1	2	14	13	1	36

Appendix D. Proportion of female spotted owls that nested on the Oregon Coast Ranges Study, 1990–2008. Estimates were calculated for paired or single females whose nesting status was determined by 1 June.

Year	Females			Nesting Adults		Nesting Subadults		Combined	
	Adults	Subadults	Unk	Prop.	95% <i>CI</i> .	Prop.	95% <i>CI</i> .	Prop.	95% <i>CI</i>
1990	19	2	7	0.90	0.60–0.99	1.00	0.07–1.00	0.86	0.63–0.96
1991	39	0	0	0.15	0.05–0.33	—	—	0.15	0.05–0.32
1992	66	6	4	0.71	0.56–0.83	0.50	0.06–0.89	0.68	0.55–0.80
1993	66	0	2	0.24	0.13–0.38	—	—	0.25	0.14–0.38
1994	85	5	2	0.67	0.54–0.78	0.40	0.01–0.87	0.64	0.52–0.75
1995	85	3	0	0.17	0.08–0.27	0.00	0.21–1.00	0.16	0.08–0.26
1996	84	8	3	0.82	0.70–0.90	0.63	0.17–0.92	0.80	0.69–0.88
1997	100	6	0	0.42	0.31–0.53	0.00	0.48–1.00	0.40	0.29–0.51
1998	96	8	3	0.62	0.49–0.72	0.25	0.01–0.67	0.40	0.48–0.70
1999	91	2	1	0.18	0.09–0.28	0.00	0.07–1.00	0.17	0.09–0.27
2000	85	2	0	0.54	0.41–0.66	0.50	0.00–0.99	0.54	0.41–0.66
2001	75	2	2	0.87	0.75–0.94	0.00	0.07–1.00	0.85	0.73–0.92
2002	64	8	4	0.55	0.40–0.68	0.00	0.58–1.00	0.49	0.35–0.61
2003	64	5	0	0.06	0.01–0.16	0.00	0.41–1.00	0.06	0.01–0.15
2004	66	2	2	0.79	0.65–0.89	0.50	0.00–0.99	0.79	0.65–0.88
2005	73	2	1	0.47	0.33–0.60	0.00	0.07–1.00	0.45	0.31–0.58
2006	47	2	1	0.07	0.01–0.19	0.00	0.07–1.00	0.06	0.01–0.18
2007	48	1	0	0.63	0.45–0.77	0.00	0.00–0.95	0.61	0.44–0.76
2008	52	1	5	0.73	0.56–0.85	0.000	0.00–0.95	0.724	0.57–0.84
Overall	1305	65	37	0.491	0.47–0.53	0.246	0.13–0.38	0.490	0.46–0.52

Appendix E. Proportion of female spotted owls that fledged young in 1990–2008 on the Oregon Coast Ranges Study. Estimates were calculated for paired or single females for which the number of young fledged was determined before 31 August.

Year	Females			Female Adults		Females Subadults		Combined	
	Adults	Subadults	Unk	Prop.	95% <i>CI</i>	Prop.	95% <i>CI</i>	Prop.	95% <i>CI</i>
1990	33	4	14	0.70	0.48–0.85	0.75	0.09–1.00	0.63	0.45–0.77
1991	53	1	2	0.11	0.04–0.26	0.00	————	0.13	0.04–0.25
1992	80	7	3	0.54	0.40–0.66	0.14	0.00–0.61	0.50	0.37–0.61
1993	70	0	3	0.11	0.04–0.22	——	————	0.12	0.05–0.23
1994	96	6	3	0.48	0.36–0.59	0.00	0.48–1.00	0.45	0.33–0.56
1995	92	3	1	0.10	0.04–0.19	0.00	0.21–1.00	0.09	0.04–0.18
1996	93	10	6	0.67	0.54–0.77	0.40	0.08–0.76	0.63	0.52–0.73
1997	109	6	1	0.24	0.15–0.34	0.00	0.48–1.00	0.23	0.15–0.33
1998	100	9	3	0.41	0.30–0.52	0.11	0.00–0.51	0.38	0.28–0.48
1999	100	3	2	0.08	0.03–0.16	0.00	0.21–1.00	0.09	0.03–0.17
2000	97	4	0	0.33	0.22–0.44	0.25	0.00–0.83	0.33	0.22–0.44
2001	87	4	4	0.68	0.55–0.78	0.00	0.32–1.00	0.65	0.53–0.76
2002	75	9	4	0.27	0.16–0.39	0.00	0.61–1.00	0.24	0.14–0.35
2003	80	8	1	0.05	0.01–0.13	0.00	0.58–1.00	0.05	0.01–0.12
2004	86	2	5	0.51	0.38–0.63	0.00	0.07–1.00	0.50	0.37–0.61
2005	77	2	2	0.33	0.21–0.45	0.00	0.07–1.00	0.31	0.20–0.43
2006	63	3	1	0.03	0.01–0.12	0.00	0.21–1.00	0.03	0.01–0.11
2007	64	1	0	0.38	0.24–0.52	0.00	0.00–0.95	0.37	0.27–0.57
2008	55	2	5	0.47	0.31–0.62	0.00	0.07–1.00	0.42	0.29–0.57
Overall	1510	84	60	0.34	0.31–0.36	0.12	0.05–0.22	0.33	0.29–0.35

Appendix F. Proportion of nesting female spotted owls that produced young in 1990–2008 on the Oregon Coast Ranges Study. Estimates were calculated for paired or single females whose nesting status was determined by 1 June.

Year	Females			Female Adults		Female Subadults		Combined	
	Adult	Subadult	Unk	Prop.	95% <i>CI</i>	Prop.	95% <i>CI</i>	Prop.	95% <i>CI</i>
1990	16	2	5	0.81	0.48–0.96	1.00	0.07–1.00	0.74	0.47–0.90
1991	6	0	0	0.67	0.14–0.96	—	—	0.67	0.14–0.96
1992	47	3	1	0.83	0.66–0.93	0.33	0.01–0.92	0.78	0.62–0.89
1993	15	0	1	0.53	0.22–0.80	0.00	—	0.50	0.20–0.77
1994	57	2	0	0.75	0.60–0.87	0.00	0.22–1.00	0.73	0.57–0.84
1995	14	0	0	0.64	0.29–0.88	—	—	0.64	0.29–0.88
1996	69	5	2	0.78	0.66–0.89	0.60	0.07–0.95	0.78	0.64–0.87
1997	42	0	0	0.62	0.43–0.78	—	—	0.62	0.43–0.78
1998	59	2	3	0.70	0.54–0.82	0.50	0.13–0.99	0.66	0.50–0.78
1999	16	0	0	0.50	0.20–0.77	—	—	0.50	0.20–0.77
2000	46	1	0	0.65	0.47–0.80	1.00	0.00–0.95	0.66	0.48–0.80
2001	65	0	2	0.83	0.69–0.92	—	—	0.82	0.68–0.91
2002	35	0	2	0.54	0.33–0.73	—	—	0.54	0.34–0.72
2003	4	0	0	1.00	0.32–1.00	—	—	1.00	0.32–1.00
2004	52	1	2	0.79	0.62–0.90	0.00	0.00–0.95	0.75	0.58–0.86
2005	32	0	0	0.75	0.51–0.89	—	—	0.75	0.53–0.89
2006	3	0	0	0.67	0.02–1.00	—	—	0.67	0.02–1.00
2007	29	0	0	0.76	0.52–0.90	—	—	0.76	0.52–0.90
2008	37	0	3	0.65	0.44–0.81	—	—	0.60	0.41–0.75
Overall	644	16	21	0.72	0.68–0.76	0.50	0.20–0.77	0.70	0.66–0.74

Appendix G. Estimated mean fecundity (\hat{b}) of female spotted owls in 1990–2008 on the Oregon Coast Ranges Study. Fecundity was defined as the number of female young produced per female, assuming a 1:1 sex ratio of offspring. Estimates were calculated for any female for which the number of young fledged was determined before 31 August.

Year	Female			Adults		Subadults		Combined	
	Adults	Subadults	Unk	\hat{b}_A	SE	\hat{b}_S	SE	\hat{b}	SE
1990	33	4	14	0.470	0.065	0.375	0.125	0.412	0.052
1991	53	1	1	0.085	0.035	0.000	0.000	0.089	0.034
1992	80	7	3	0.419	0.048	0.143	0.143	0.383	0.045
1993	70	0	3	0.086	0.030	—	—	0.096	0.032
1994	96	6	3	0.365	0.043	0.000	0.000	0.338	0.040
1995	92	3	1	0.08	0.027	0.000	0.000	0.078	0.026
1996	93	10	6	0.522	0.044	0.350	0.150	0.500	0.041
1997	109	6	1	0.165	0.031	0.000	0.000	0.159	0.029
1998	100	9	3	0.320	0.042	0.111	0.111	0.295	0.039
1999	100	3	2	0.060	0.022	0.000	0.000	0.062	0.021
2000	97	4	0	0.258	0.040	0.125	0.125	0.252	0.039
2001	87	4	4	0.592	0.049	0.000	0.000	0.574	0.047
2002	75	9	5	0.193	0.040	0.000	0.000	0.170	0.035
2003	80	8	1	0.031	0.016	0.000	0.000	0.028	0.015
2004	86	2	5	0.401	0.047	0.000	0.000	0.387	0.045
2005	77	2	2	0.234	0.042	0.000	0.000	0.222	0.040
2006	63	3	1	0.032	0.022	0.000	0.000	0.030	0.021
2007	64	1	0	0.281	0.050	—	—	0.277	0.049
2008	55	2	5	0.364	0.060	0.000	0.000	0.323	.055
Overall	1510	84	60	0.260	0.010	0.089	0.028	0.251	0.010

Appendix H. Mean brood size of female spotted owls in 1990–2008 on the Oregon Coast Ranges Study. Mean brood size was defined as the number of young produced per female that fledged at least one young before 31 August.

Year	Females			Adults		Subadults		Combined	
	Adults	Subadults	Unknowns	\bar{x}	SE	\bar{x}	SE	\bar{x}	SE
1990	23	3	6	1.348	0.102	1.000	0.000	1.313	0.083
1991	6	0	1	1.500	0.224			1.429	0.202
1992	43	1	1	1.558	0.077	2.000	0.000	1.568	0.076
1993	8	0	1	1.500	0.189	—	—	1.556	0.176
1994	46	0	1	1.522	0.074	—	—	1.511	0.074
1995	9	0	0	1.667	0.167	—	—	1.667	0.167
1996	62	4	3	1.565	0.063	1.750	0.250	1.580	0.060
1997	26	0	1	1.385	0.097			1.370	0.537
1998	41	1	1	1.561	0.086	2.000	0.000	1.571	0.084
1999	8	0	1	1.500	0.189			1.444	0.176
2000	32	1	0	1.563	0.089	1.000	0.000	1.545	0.088
2001	59	0	3	1.746	0.062	—	—	1.758	0.059
2002	20	0	1	1.450	0.114	—	—	1.429	0.111
2003	4	0	0	1.250	0.250	—	—	1.250	0.250
2004	44	0	2	1.568	0.076	—	—	1.565	0.074
2005	25	0	0	1.440	0.101	—	—	1.440	0.212
2006	2	0	0	2.000	0.000	—	—	2.000	0.000
2007	24	0	0	1.500	0.104	—	—	1.500	0.104
2008	26	0	0	1.615	0.112	—	—	1.615	0.112
Overall	508	10	22	1.549	0.023	1.500	0.167	1.545	0.022